

Emporium Model

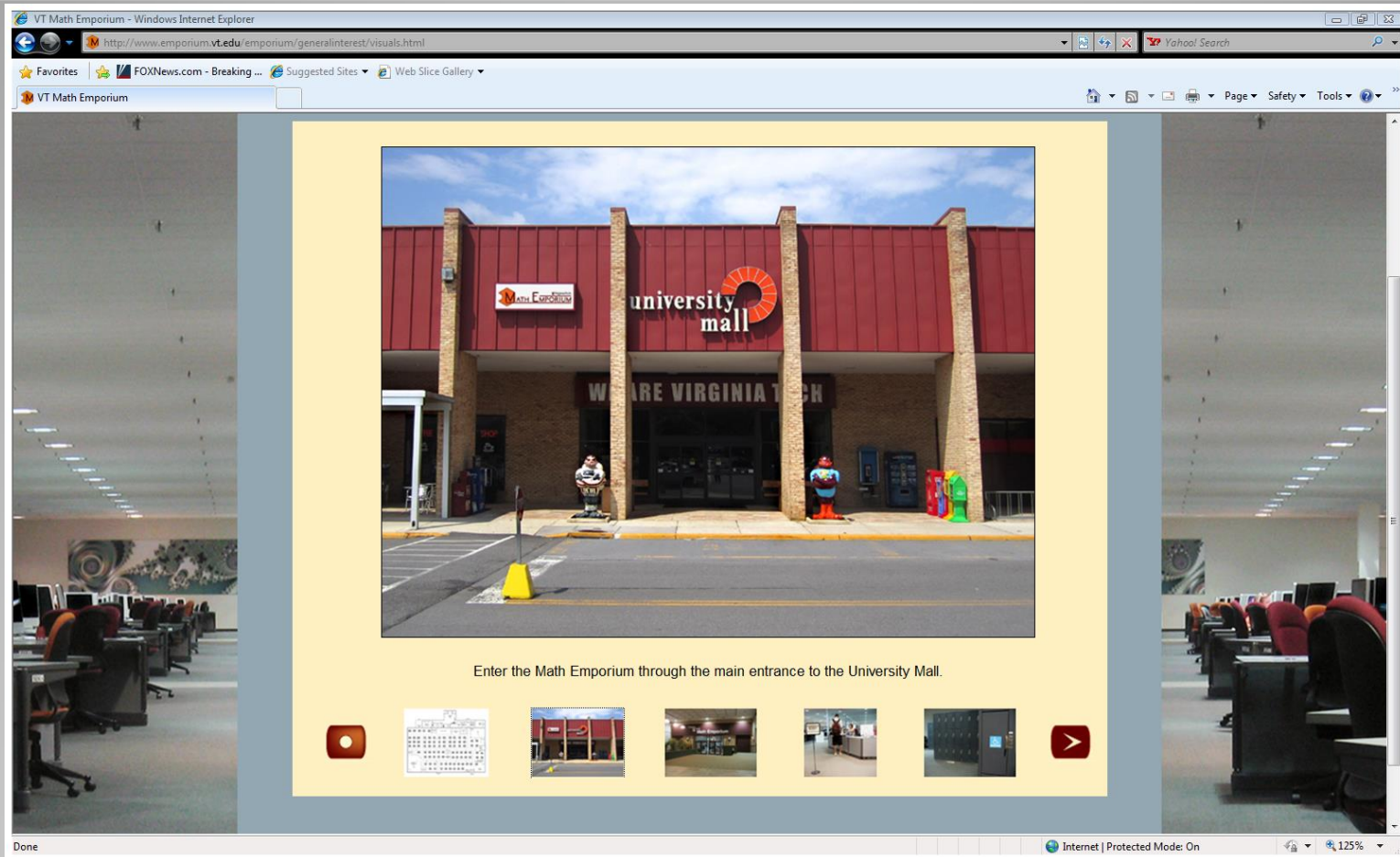
Remediation workshop
April 26, 2013

- All students attend the same lecture at the same time.
 - Students have different levels of background.
 - Students learn at different rates.
- Lectures are 50 minutes long.
- Students go home and struggle with homework in isolation.
- Testing is summative not formative.
- It is not cost effective.

What is the problem with the traditional approach?

- There is a person, the teacher, who acts as cheerleader for the student giving the student encouragement and support as the students navigate their way through the course. For many learners this is very important.
- There is significant structure to the course. Students know what is expected of them, how they should go about their learning, what they should be learning and by when they will be tested to determine how well they have learned.

What should be preserved from the traditional approach



**Math Emporium occupies old
Woolco store space in a mall**

- Occupies an old Woolco Department store space—hence the name.
- 60,000 square foot facility
- 550 computers
- Numerous breakout rooms and discussion spaces
- Serves 11 courses in a variety of ways.
- Serves 8,000 students

What is the Math Emporium?



There are over 500 computers arranged in groups of six. The rolling chairs encourage collaboration.

550 computers and numerous breakout rooms

- Serve students as individuals
- Self-paced learning
- Encourage students to be active learners
- Utilize a higher percentage of student study time in productive work
- Address student background deficiencies as they arise
- Help students to become self-sufficient life-long learners
- Save money

Goals of the Math Emporium:



11 courses served



Math 1015 pages:

- [Course Information](#)
- [Distance Learning](#)
- [Schedule](#)
- [Online Text](#)
- [Lesson Tips](#)
- [Quizzes](#)
- [Proctored Exams](#)
- [Getting Help](#)
- [Gradebook](#)
- [Grade Estimator](#)
- [FAQ](#)
- [Trig Supplementary Lectures](#)

[Supplementary Lectures](#)
[Calculator Instructions](#)

[Math 1015 Home](#)
[Math Emporium](#)
[VT Math Department](#)
[Virginia Tech](#)

[Contact Your Teacher](#)

Math 1015 Lesson Pages

Unit	Title
1	Basics
2	Simplifying Algebraic Expressions
3	Equations
4	Functions
5	Graphing
6	Exponential and Logarithmic Functions
7	Trigonometry

[Math 1015 Homepage](#)



University of Idaho

POLYA

MATH CENTER

Math 108

Math 143

Math 144

Math 160

Math 170

Math 175



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[Mathematics Department](#)
[University of Idaho](#)

Current Polya Headcount

0

updated 4/21/2013 9:14 am



Questions? Comments?
Email: polya@uidaho.edu
Phone: (208) 885-5717





- Computer lab (100 computers plus 20 laptops)—these accommodate 1600 students
- Trained math helpers
- Extensive Data base
- Web interface for students and staff
- Staff to schedule people, maintain equipment
- Faculty leadership for curricular decisions

Elements of the Polya Math Learning Center



Students Attend Focus Group Once per Week



Students attend the Polya Math Learning Center 150 minutes/wk



**Students receive “just in time”
help from trained tutors**

- All material that is to be learned is presented in a series of 8 to 12 minute lectures with lots of animations
- Live lectures also cover all of the material
- A workbook is used to help the student learn and to chronicle his or her journey
- Interactive computer modules make learning more effective and interesting

Learning tools

Trigsted MyMathLab eCourse Series

Home Learn About Results Learning Community Get Started



Completely clickable.
Totally integrated.
Revolutionizing the way
students learn.

Play video ▶

< 1 2 3 4 > Pause

Available for...

Prealgebra
Beginning Algebra
Intermediate Algebra
Beginning & Intermediate Algebra
Developmental Mathematics
College Algebra
Algebra & Trigonometry
Precalculus: A Right-Triangle Approach
Precalculus: A Unit-Circle Approach
Trigonometry

Learn more

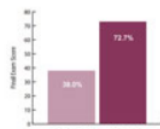


Figure 1: Comparison of Average Final Exam Scores before and after Trigsted MyMathLab Adoption (n=16)

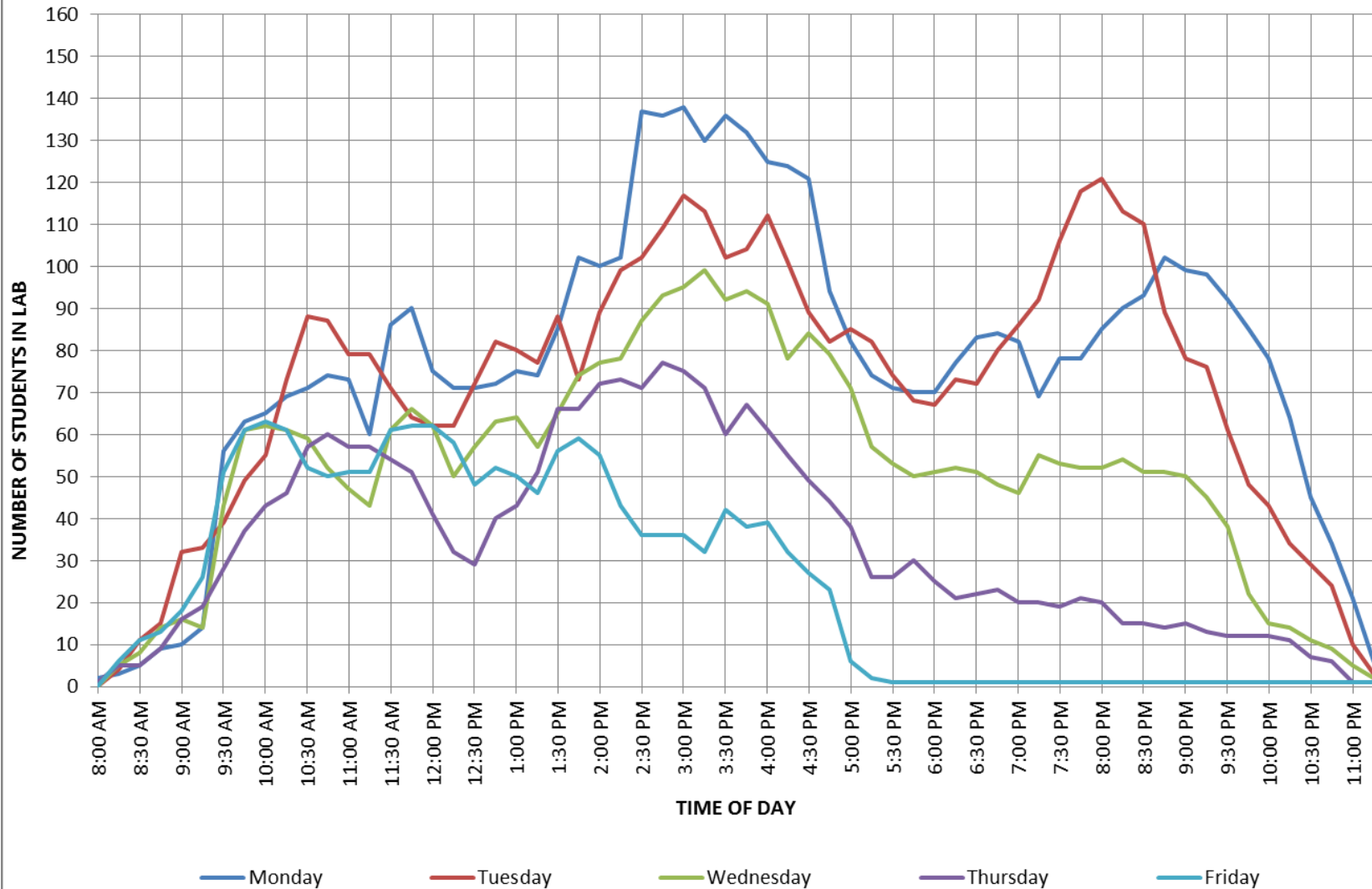
Volunteer State Community College

After just one semester, VSCC College Algebra students' average final exam grades improved by 91 percent.

"My students can really relate to this, it's a true animation. It would be like someone standing up there and teaching without them being in a classroom setting."

—Donna Densmore, Bossier Parish Community College

Monday, August 27 through Friday, August 31, 2012



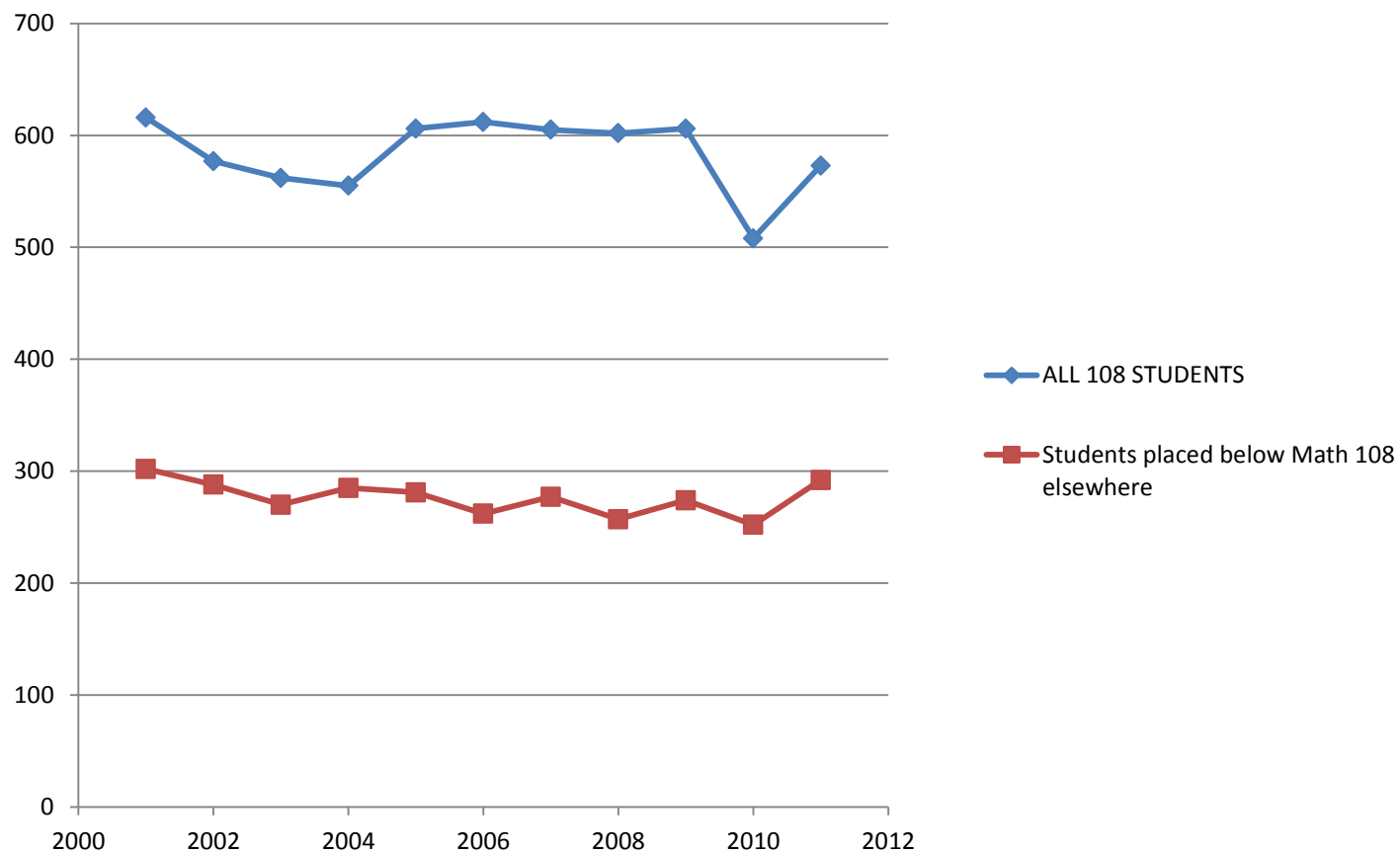
- Regularly attends focus group and participates in its activities
- Faithfully attends the Polya Mathematics Learning Center for their required time
- Attempts weekly homework assignments
- Attempts weekly quizzes
- Takes all three versions of each test (or stops taking tests after a 90% is achieved)

Things we want students to try

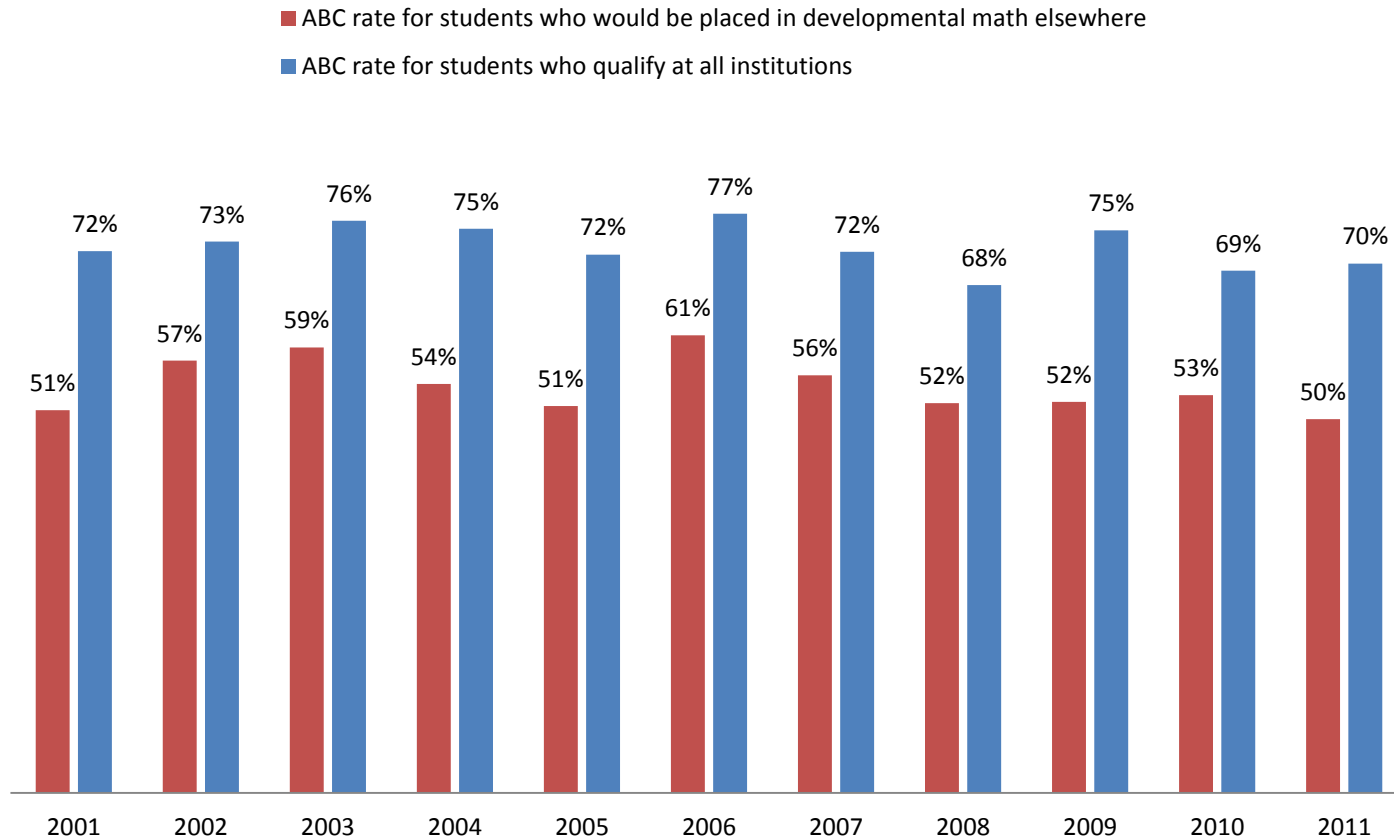
Try Score	N	Num ABC	ABC Rate
5	693	684	0.987013
4	1371	1278	0.932166
3	1663	1434	0.862297
2	1442	1004	0.696255
1	1205	572	0.474689
0	762	60	0.07874

Relationship between trying and succeeding





Math 108 ABC rate for students with low placements scores versus those with qualifying placement scores for all institutions



Math 108 ABCD rate for students with low placements scores versus those with qualifying placement scores for all institutions

